

In the claims:

1. (Currently amended) A method for determining the ability of a network to spread information or physical traffic, said network including a number of network nodes interconnected by links, said method ~~including~~ comprising the steps of:

[[•]] mapping the topology of a network[[,]];

[[•]] computing a value for link strength between the nodes[[,]];

[[•]] computing an Eigenvector Centrality index for all nodes, said index based on said link strength values;

[[•]] identifying nodes which are local maxima of the Eigenvector Centrality index as centre nodes[[,]];

[[•]] grouping the nodes into regions surrounding each identified centre node[[,]];

[[•]] assigning a role to each node from its position in a region, wherein types of roles include [[as]] centre nodes, region member nodes, border nodes, bridge nodes, and dangler nodes wherein the role of region member nodes in a given region is assigned to all nodes for which a steepest ascent link path in the topology map terminates uniquely at the centre node of that region and;

[[•]] measuring the susceptibility of the network to spreading, said measuring based on the number of regions, [[their]] the size of the regions, and how [[they]] the regions are connected.

~~characterized in~~

- ~~• assigning the role of region member nodes in a given region to all nodes for which a steepest ascent link path in the topology map terminates uniquely at the centre node of that region.~~

2. (Currently amended) A method as claimed in claim 1, ~~characterized in~~ wherein computing said link strength value ~~[[by]]~~ further comprises counting the number of different types of bonds any pair of nodes uses in their interaction~~[[,]]~~ and using the number of bonds as a measure for link strength.

3. (Currently amended) A method as claimed in claim 1, ~~characterized in~~ wherein computing said link strength value ~~[[by]]~~ further comprises measuring the traffic between any two nodes~~[[,]]~~ and using the measure of traffic as a measure for link strength.

4. (Currently amended) A method as claimed in claim 1, ~~characterized in~~ wherein computing said link strength value ~~[[by]]~~ further comprises measuring the traffic between each pair of nodes for each different type of bond, dividing the amount of traffic in each type of bond with the total traffic for that type of bond~~[[,]]~~ and using the sum of the resulting fractions as a measure for link strength.

5. (Currently amended) A method as claimed in ~~any of the claims 1-4~~ claim 1, ~~characterized in further comprising~~ organizing said link strength values into ~~a matrix,~~ the an adjacency matrix $[[,]]$ and computing the Eigenvector Centrality index as the principal eigenvector of said adjacency matrix.

6. (Currently amended) A method as claimed in claim 1, ~~characterized in further comprising~~ assigning the role of border nodes to all nodes that have no unique association to any one centre node.

7. (Currently amended) A method as claimed in claim 1, ~~characterized in further comprising~~ assigning the role of bridge nodes to all border nodes which lie on at least one non-self-retracing link path connecting two centre nodes.

8. (Currently amended) A method as claimed in claim 1, ~~characterized in further comprising~~ assigning the role of dangler nodes to all border nodes $[[, \text{ and}]]$ which lie on no non-self-retracing link path connecting two centre nodes.

9. (Currently amended) ~~Use of the method as claimed in any of the claims 1-8 for~~ A method as claimed in claim 1, further comprising preventing $[[\text{the}]]$ spreading of a virus or harmful information in $[[a]]$ the network by identifying which nodes to protect.

10. (Currently amended) ~~Use of the A~~ method as claimed in ~~any of the claims 1-8~~ claim 1 for improving ~~[[the]]~~ spreading of information in a network by identifying nodes for spreading information.

11. (Currently amended) ~~Use of the A~~ method as claimed in ~~any of the claims 1-8~~ claim 1 for planning ~~[[the]]~~ an architecture of a network, in order to improve robustness ~~[[and/or]]~~ or security ~~[[and/or]]~~ or communication efficiency in said network.

12. (Currently amended) ~~Use of the A~~ method as claimed in ~~any of the claims 1-8~~ claim 1 for planning ~~[[the]]~~ an architecture of a power network in order to improve ~~[[the]]~~ robustness of said network.

13. (Currently amended) ~~Use of the A~~ method as claimed in ~~any of the claims 1-8~~ claim 1 for planning a distribution network for goods.

14. (Currently amended) ~~Use of the A~~ method as claimed in ~~any of the claims 1-8~~ claim 1 for planning a transport network.

15. (New) A method as claimed in claim 1, further comprising preventing spreading of harmful information in the networks by identifying which nodes to protect.